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**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION**

ILLUMINA, INC. and  
ILLUMINA CAMBRIDGE LTD.,

Plaintiffs,

v.

BGI GENOMICS CO., LTD.,  
BGI AMERICAS CORP.,  
MGI TECH CO., LTD.,  
MGI AMERICAS INC., and  
COMPLETE GENOMICS INC.,

Defendants.

Case No. 3:19-cv-03770-WHO (TSH)  
Case No. 3:20-cv-01465-WHO (TSH)

**DEFENDANTS' MOTION FOR A NEW  
TRIAL**

Date: March 2, 2022  
Time: 2:00 PM  
Judge: The Hon. William H. Orrick

**NOTICE OF MOTION AND MOTION**

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

Please take notice that Defendants BGI Genomics Co., Ltd., BGI Americas Corp., MGI Tech Co., Ltd., MGI Americas Inc., and Complete Genomics Inc. (collectively, “CGI” or “Defendants”) move this Court for a new trial pursuant to Federal Rule of Civil Procedure 59 as to the validity of U.S. Patent Nos. 7,777,973 (“the ’973 patent”), willfulness, indirect infringement, and Illumina’s claims for damages. Defendants’ motion shall be heard on March 2, 2022 at 2:00 p.m., or as soon as this Court deems appropriate, in Courtroom 2, 17th Floor, of the United States District Court for the Northern District of California, located at 450 Golden Gate Ave., San Francisco, California 94102.

This Motion is based upon this notice and supporting memorandum, the trial record, and such other matters of which the Court may take judicial notice. Defendants respectfully request that the Court order a new trial as to the validity of the ’973 patent, willfulness, indirect infringement, and Illumina’s claims for damages..

DATED: January 11, 2022

Respectfully submitted,

QUINN EMANUEL URQUHART & SULLIVAN, LLP

By /s/ David Bilsker

David Bilsker

Attorneys for Defendants BGI Genomics Co., Ltd.,  
BGI Americas Corp., MGI Tech Co., Ltd., MGI  
Americas Inc., and Complete Genomics, Inc.

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## INTRODUCTION

In the alternative to the relief requested in CGI's Motion for Judgment as a Matter of Law, CGI requests a new trial on the issues of the invalidity of the '973 patent, willfulness, indirect infringement, and Illumina's claims for damages. As described further in that Motion for JMOL, incorporated herein by reference, Illumina failed to present substantial evidence from which a reasonable jury could find that the '973 patent was not invalid, that Defendants' infringement was willful, that Defendants induced infringement of the '444, '973, '537, and '200 patents and contributed to the infringement of the '444 and '973 patents, and that Illumina's damages amounted to \$8 million. For those same reasons, in the alternative, the verdict on these issues was contrary to the clear weight of the evidence and a new trial is warranted.

In addition, the presentation of the evidence at trial was unfair to Defendants in numerous respects. First, Illumina repeatedly referenced the prior proceedings only involving the '537 patent as deciding the obviousness issues relating to the '973 patent. Despite the Court's instructions to Illumina to be clear in its argument, Illumina repeatedly mischaracterized these proceedings as involving Illumina *patents* and suggested to the jury that multiple judges across multiple proceedings "got it right" in finding Illumina's "patented azidos" not invalid. This repeated argument was false and misleading—those prior proceedings only involved one of the five asserted patents, which has a different claim scope from the '973 patent, and different prior art combinations were at issue. For the same reasons, Illumina unfairly prejudiced Defendants with this evidence on the issue of willfulness, improperly implying to the jury that Defendants had knowledge that all of the asserted patents had been previously considered and "upheld."

Illumina's argument regarding the written description support of the '973 patent was also improper and unfair to Defendants. It presented misleading testimony implying that one of the inventors (Dr. Balasubramanian) had thought to use unlabeled nucleotides at the time of the invention. This was misleading, as the complete testimony showed that Dr. Balasubramanian could not remember when this unlabeled thought had come about and he testified that the unlabeled inventions he was thinking of were actually those that Defendants had invented and are the subject of a pending suit in Delaware between the parties. Moreover, even if the misleading, truncated

1 testimony were proper, such testimony cannot be used to fill in the gaps in the written description  
2 provided in the four corners of the '973 patent itself under the written description standard.

3 On the issue of willfulness, three additional reasons warrant a new trial here. First, Illumina  
4 invoked an improper legal standard imparting to the jury an inaccurate (and prejudicial)  
5 understanding of the law that willfulness could be found based on conduct purporting to relate to  
6 Illumina's "patented azido," rather than on a per-patent basis as required under the correct legal  
7 standard. Second, Illumina argued to the jury that CGI did not dispute infringement, without  
8 explaining that CGI did not dispute infringement only *after* the Court's claim constructions. Third,  
9 the jury's finding may have been based in part on the invalidated '444 patent, as Illumina presented  
10 evidence and argument that CGI purportedly copied Illumina's blocked nucleotides. Because the  
11 invalidated '444 patent is the only patent that covered just a blocked nucleotide, reliance on this  
12 evidence for a finding of willfulness would be improper.

13 Regarding indirect infringement, Illumina presented no substantial evidence from which a  
14 reasonable jury could find all of the elements of induced or contributory infringement were met.  
15 Illumina injected this confusing issue into the case with its proposed verdict form, which Defendants  
16 objected to. Illumina never clarified the evidence it contended supported findings of induced and  
17 contributory infringement at trial and ignored the required elements of its claims. The jury was  
18 confused by these indirect infringement issues, which distracted it from the central issues of  
19 invalidity, willfulness, and damages.

20 On damages, the jury's award was unduly excessive and untethered to any evidence. The  
21 award of \$8 million for research and development—and not any commercial sales—was far beyond  
22 what the evidence supported.

23 Finally, Illumina's repeated attempts to inflame the jury by connecting Defendants with  
24 China and the Chinese Communist Party justify a new trial on all of these issues. Again and again,  
25 Illumina attempted to connect Defendants to China using inflammatory and highly suggestive  
26 language, despite Illumina's agreement not to do so during trial.

27 For all of these reasons, a new trial pursuant to Rule 59 is appropriate.  
28

## STATEMENT OF FACTS

Trial was held from November 15-22, 2021, and the jury returned a verdict that claim 3 of the '444 patent and claim 1 of the '025 patent were invalid as obvious, but that the remaining asserted claims were not invalid. *See* Dkt. No. 594 at 8-12.<sup>1</sup> The jury also found that Defendants induced infringement of some but not all of the asserted patents (the '444, '973, '537, and '200 patents) and contributed to the infringement of some but not all of the asserted patents (the '444 and '973 patents), that Defendants' infringement was willful, and awarded damages in the amount of \$8 million. *Id.* at 2-7, 13.

## ARGUMENT

Federal Rule of Civil Procedure 59(a)(1) warrants a new trial “if the verdict is contrary to the clear weight of the evidence, or is based upon evidence which is false, or to prevent, in the sound discretion of the trial court, a miscarriage of justice.” *Wordtech Sys., Inc. v. Integrated Networks Sols., Inc.*, 609 F.3d 1308, 1313 (Fed. Cir. 2010) (quoting *United States v. 4.0 Acres of Land*, 175 F.3d 1133, 1139 (9th Cir. 1999) (internal quotation marks omitted)). In considering a motion for a new trial, a court “has the duty to weigh the evidence as the court saw it, and to set aside the verdict of the jury, even though supported by substantial evidence, where, in the court’s conscientious opinion, the verdict is contrary to the clear weight of the evidence.” *Molski v. M.J. Cable, Inc.*, 481 F.3d 724, 729 (9th Cir. 2007). A new trial can also be granted where ““the damages are excessive, or [] for other reasons, the trial was not fair to the party moving,”” *id.*, or “on any ground necessary to prevent a miscarriage of justice.” *Finjan, Inc. v. Sophos, Inc.*, 244 F. Supp. 3d 1016, 1029 (N.D. Cal. 2017) (quoting *Experience Hendrix L.L.C. v. Hendrixlicensing.com Ltd.*, 762 F.3d 829, 842 (9th Cir. 2014)); *see also Rattray v. City of National City*, 51 F.3d 793, 800 (9th Cir. 1994) (new trial is granted to prevent “miscarriage of justice”). Remittitur is appropriate under Rule 59 where the damages awarded by the jury are not supported, and the “proper amount of a remittitur is the maximum amount sustainable by the evidence.” *Jessen Elec. & Serv. Co. v. Gen. Tel. Co. of California*, 106 F.3d 407 (9th Cir. 1997).

<sup>1</sup> All citations to the docket herein refer to Case No. 3:19-cv-1465-WHO unless otherwise noted.

**I. A NEW TRIAL ON THE INVALIDITY OF THE '973 PATENT IS WARRANTED**

CGI moves for a new trial on the issue of the invalidity of the '973 patent. As discussed in CGI's motion for JMOL, Illumina did not present substantial evidence from which a reasonable jury could find that the '973 patent is not invalid. JMOL § I.A-B. For those same reasons, CGI is entitled to a new trial, in the alternative, as to the invalidity of the '973 patent. A new trial is further appropriate for the additional reasons below.

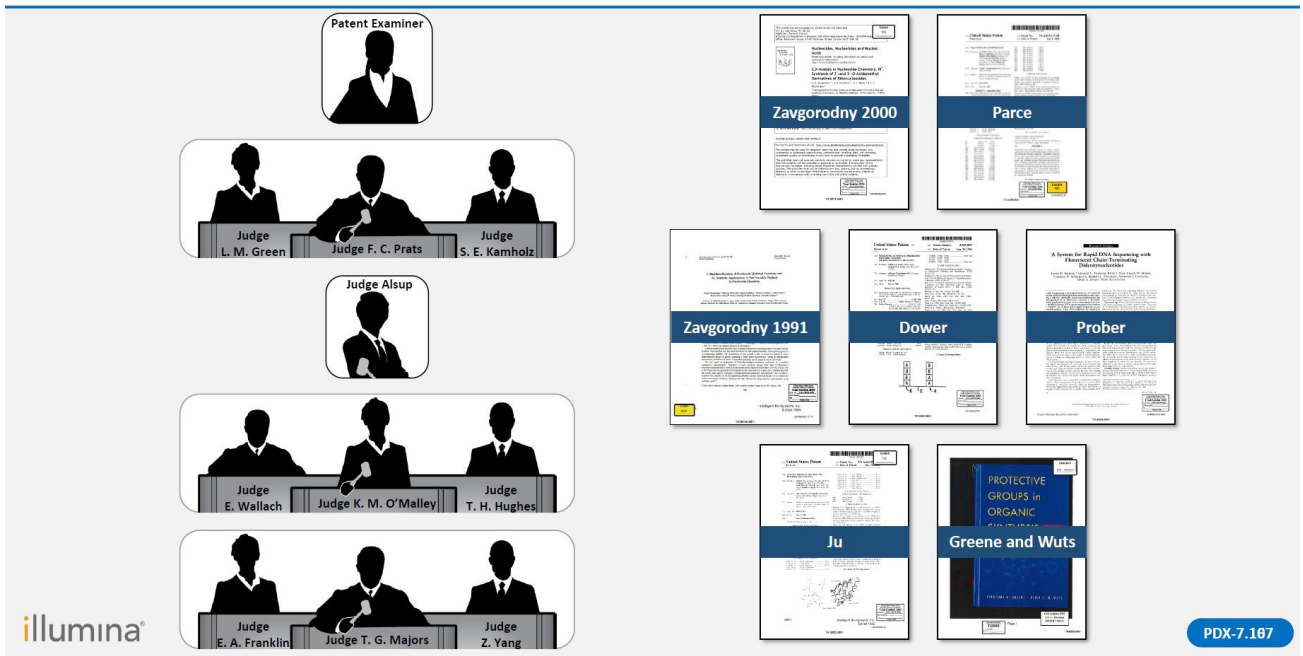
**A. Illumina Mischaracterized Prior Proceedings That Involved Only the '537 Patent**

Illumina repeatedly referred to prior proceedings involving the '537 patent only—the dispute between Illumina and QIAGEN and the IPR petitions—in order to give the impression that *all* asserted patents (including the '973 patent) had been held not invalid. *See, e.g.*, Tr. 182:18-20<sup>2</sup> (“By the way, that makes nine different judges that work on these type of matters that have found that Zavgorodny doesn’t invalidate as obvious.”); *id.* at 1196:13-16 (“That’s why by that point seven judges had gotten it wrong whose job is to do this and know the legal standard and have chemistry experience with these cases.”). Defendants repeatedly objected to Illumina’s misleading statements. *See, e.g.*, Dkt. No. 489 at 8-9 (Defendants’ motion *in limine*); Tr. 479:13-480:4 (“There was one patent, not Illumina patents, and he’s been saying that repeatedly.”) The Court admitted this evidence and did not strike any of the testimony, but cautioned Illumina’s counsel to be clear during trial. *See, e.g.*, Dkt. No. 526 at 16 (denying Defendants’ motion *in limine*); TX1783 (order granting preliminary injunction in the *QIAGEN* case involving only the '537 patent); TX715 (decision denying CGI’s IPR involving only the '537 patent); TX986 (same); TX987 (same); Tr. 480:2-4. Despite the Court’s instructions, Illumina continued to misrepresent these prior proceedings throughout the trial and during closing arguments. For example, Illumina presented a series of slides on these prior proceedings that portrayed the invalidity issue as already decided:

<sup>2</sup> Citations in underlined italics refer to testimony or statements from Illumina.



## Invalidity Challenges Based On Zavgorodny Failed



Dkt. No. 596, PDX-7.167. The presentation concluded with the text “The Judges Got it Right.” See *id.*, PDX-7.175. This evidence and argument was unfair to CGI, as they misrepresented the scope of the prior proceedings.

Illumina also falsely implied that Dr. Metzker submitted a declaration that was considered in the QIAGEN IPR involving the ’537 patent. See, e.g., Tr. 468:11-13. Defendants objected and the Court struck the question and answer (*id.* at 469:3-9, 470:4-6, 470:21-471:3), but Illumina again raised this same declaration shortly thereafter. Tr. 474:4-9. Illumina’s repeated suggestion to the jury that Dr. Metzker’s opinions had been previously considered and rejected in prior proceedings—combined with Illumina’s repeated implication that the prior proceedings decided the validity issues in this trial—was prejudicial and unfairly tainted the testimony of Dr. Metzker regarding the invalidity of the ’973 patent.

These repeated mischaracterizations and improper suggestions were manifestly unfair to Defendants in that they suggested to the jury that Defendants’ arguments on the different prior art

combinations relating to the '973 patent had been considered by numerous judges and "failed." For these reasons, the trial was unfair to Defendants and a new trial should be granted.

**B. Illumina Presented Incomplete and Misleading Excerpts of Testimony in an Attempt to Argue for Written Description Support in the '973 Patent**

A new trial is further appropriate under Rule 59 given Illumina's presentation of incomplete and therefore misleading testimony during closing argument rebuttal, that Defendants could not address, to imply that the inventors had thought of using unlabeled nucleotides as of the priority date of the '973 patent. First, such testimony is legally improper when used to attempt to establish written description support. *See Nuvo Pharms. (Ireland) Designated Activity Co. v. Dr. Reddy's Lab'ys Inc.*, 923 F.3d 1368, 1381 (Fed. Cir. 2019) ("[I]nventor testimony cannot establish written description support where none exists in the four corners of the specification," though it can "illuminate[] the absence of critical description . . ."). Second, Illumina misleadingly presented Dr. Balasubramanian's testimony in a way that implied he thought of using unlabeled nucleotides *at the time of the claimed invention*.

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**Inventors Envisioned No Labels**



**Shankar Balasubramanian, Ph.D.**

So, I didn't myself envisage a scheme using unlabeled. But, you know, the team had a mixture of ideas, I know. Different labeling schemes. My original vision was to use four different labels, but of course there are methods that don't necessarily need four labels and could use combinations and even zero labeling. So, clearly there were people in the company who had more than one view on that.

Dkt. No. 525-13 at 311:19-312:4

illumina

PDX-8.22

Dkt. No. 597, PDX-8.22; *see also* Tr. 1321:20-1322:11. CGI objected to this slide and Illumina's argument when it was presented. Tr. 1322:18-21. This slide and Illumina's argument omitted the next questions and answers where Dr. Balasubramanian testified that he could not recall when the purported "zero labeling" discussion could have occurred:

Q. What scheme were you aware of at the time, *from '98 to 2005*, that used zero labels for the incorporated nucleotide and allowed you to monitor as the incorporation progressed?

A. So *I don't fully recollect when in time these ideas came in*, but there were ideas about having different coding schemes for signifying the identity of bases. And, you know, part of that, there was a concept of having more than one label using brightness as a different level of introducing a code. And there was also the idea of not having a label that was discussed. *I don't remember the exact date*. I do remember myself, I personally felt skeptical about the no label, and subsequently I was proven wrong by things that they put into products.

Dkt. No. 571-13 (*Balasubramanian*) at 312:5-24. Dr. Balasubramanian could not even confirm that this "zero labeling" discussion occurred before 2005. *Id.* He also confirmed that what he was speaking of was the two channel scheme that Defendants sought a patent on in 2008 and have asserted against Illumina in Delaware.<sup>3</sup> *Id.* at 312:5-9, 312:11-313:9. A new trial regarding invalidity of the '973 patent is appropriate as Illumina presented misleading testimony implying that Dr. Balasubramanian did think of an unlabeled approach at the time of the purported invention.

## II. CGI SHOULD BE GRANTED A NEW TRIAL ON WILLFULNESS

A new trial on willfulness is warranted here for at least five reasons. First, as CGI explained in its JMOL of no willfulness, the jury's finding that CGI acted willfully is against the clear weight of the evidence. Second, Illumina invoked an improper legal standard, and sought to leave the jury with an inaccurate (and prejudicial) understanding of the law. Third, Illumina incorrectly argued to the jury that CGI did not dispute infringement, without explaining that CGI did not dispute infringement only after the Court's claim constructions. Fourth, as discussed above, Illumina repeatedly mischaracterized the facts regarding prior proceedings—the QIAGEN/Illumina dispute and the CGI IPR petitions—involving only the '537 patent, suggesting instead that these

<sup>3</sup> *See* U.S. Patent Nos. 9,122,132, 10,662,473; *Complete Genomics, Inc. v. Illumina, Inc.*, C.A. No. 1:19-cv-970-MN (D. Del.).

proceedings “upheld” *all* the asserted patents. Fifth, the jury’s willfulness finding may have been based in part on the invalidated ’444 patent. *See, e.g., Omega Patents, LLC v. Calamp Corp.*, 920 F.3d 1337 (Fed. Cir. 2019). To the extent that this Court grants CGI’s request for JMOL of no willful infringement regarding one or more asserted patents, such a grant would be an additional reason to vacate the jury’s willfulness finding and conduct a new trial on willfulness. *See id.*

**A. The Jury’s Willfulness Finding Was Against the Clear Weight of the Evidence**

As set out in CGI’s motion for JMOL of no willfulness, Illumina presented no evidence that CGI was aware pre-suit of any asserted patent other than the ’537 patent, which Illumina asserted only against StandardMPS, not CoolMPS, and no evidence of infringing StandardMPS activities after CGI became aware of the ’537 patent. JMOL § II.B.1-2. In fact, the evidence showed that after learning of the ’537 patent, CGI took steps to avoid infringement. Tr. 382:1-6, 385:22-386:5; Dkt. No. 571-6 (X. Xu) at 66:24-67:7, 72:10-74:2; Dkt. No. 571-5 (J. Wang) at 47:24-48:2, 52:9-14, 60:4-17, 65:13-66:3, 68:3-10. Post-suit, the evidence similarly does not warrant a finding of willfulness. JMOL § II.C. Illumina presented no evidence of post-suit infringing StandardMPS activities that could serve as a basis for a finding of willful infringement of any asserted patent,<sup>4</sup> and no evidence of post-suit infringing CoolMPS activities that could serve as a basis for a finding of willful infringement of the ’973 patent.<sup>5</sup> *Id.* Moreover, Illumina did not present evidence to show that CGI’s post-suit beliefs in non-infringement and invalidity of the ’973 patent were unreasonable. *Id.*

<sup>4</sup> Illumina asserted the ’537 and ’200 patents against StandardMPS on June 27, 2019 (Case No. 3:19-cv-3770-WHO, Dkt. No. 1), and then the ’444, ’973, and ’025 patents against CoolMPS and StandardMPS on February 27, 2020 (Dkt. No. 1).

<sup>5</sup> Only the ’973 patent is relevant to post-suit willful infringement by CoolMPS, given that the jury invalidated the ’444 patent and that the Court held on summary adjudication that CoolMPS does not infringe the ’025 patent. Dkt. Nos. 469, 594.

**B. Illumina Invoked an Improper Legal Standard**

Illumina repeatedly suggested to the jury that there was no requirement for the jury to find that the requirements of knowledge and intent were met for each patent. In fact, as discussed in CGI’s JMOL motion, Illumina’s express strategy was *not* to attempt to prove willfulness patent by patent. JMOL § II.A. Instead, Illumina sought to persuade the jury incorrectly that they could find that CGI willfully infringed Illumina’s “patented azido.” Illumina’s counsel told the jury in closing: “This is the question you guys have to look at. ‘What basis did you have to launch azido-based sequencing instruments in the U.S. given Illumina’s patented azido?’ That’s the question before the jury.” Tr. 1191:3-8. Illumina’s reference to “azido-based sequencing instruments” and “Illumina’s patented azido” misleadingly blends together all accused products—CoolMPS and StandardMPS—and all asserted patents. But that is not the law. Illumina was required to prove to the jury that CGI had knowledge of each asserted patent and an intent to infringe that patent.

**C. Illumina Mischaracterized CGI’s Position Regarding Infringement of the Asserted Patents**

Illumina’s counsel also misleadingly argued to the jury that CGI did not dispute infringement and that CGI’s purported failure to dispute infringement weighed in favor of a finding of willfulness: “Is BGI’s infringement willful? Right? It’s undisputed they’re infringing.” Tr. 1174:4-5. This argument mischaracterizes CGI’s positions regarding infringement and, again, fails to address willfulness on a patent by patent basis. First, it was never “undisputed” that all accused products infringed all asserted patents. Illumina accused StandardMPS of infringing all five asserted patents (the ’537, ’200, ’444, ’973, and ’025 patents), but accused CoolMPS of infringing only three asserted patents, the ’444, the ’973, and the ’025 patents. Case No. 19-cv-3770, Dkt. No. 1; Dkt. No. 1. Therefore, CoolMPS was never even accused of infringing the ’537 and ’200 patents. Second, the Court summarily adjudicated that CoolMPS does not infringe the ’025 patent and the ’444 patent was found to be obvious. Dkt. Nos. 469, 594. Third, as reflected in the jury

instructions, CGI did not dispute infringement of the '973 patent only after the Court's claim constructions. Tr. 100:6-9. Moreover, Illumina did not present any evidence to show that CGI's beliefs in non-infringement and invalidity of the '973 patent were unreasonable. JMOL § II.C. Illumina therefore sought to leave the jury with an incorrect and prejudicial understanding of CGI's position regarding infringement.

**D. Illumina Mischaracterized Prior Proceedings That Involved Only the '537 Patent**

As discussed above, throughout the trial Illumina also repeatedly mischaracterized the prior proceedings—the QIAGEN/Illumina dispute and the CGI IPR petitions—which involved only the '537 patent, as involving *all* of the asserted patents. Illumina's misrepresentations were particularly frequent during the examination of Dr. Radoje Drmanac, which is especially relevant to Illumina's contentions regarding willfulness. *E.g.* Tr. 460:12-14 ("You were aware that QIAGEN attempted to invalidate the *Illumina azido patents*; right?") (emphasis added); Tr. 463:6-8 ("And when you read the three-judge panel analysis, did you think they'd made a mistake in their legal analysis of why Zavgorodny didn't render *the Illumina patents* invalid?") (emphasis added); Tr. 479:15-17 ("You wanted to file IPRs because you thought you could explain why the seven other judges and the Patent Office all had gotten it wrong *regarding Illumina's patents*, correct?") (emphasis added). Despite CGI's objections, (Tr. 479:15-480:5), Illumina continued to misrepresent these prior proceedings throughout the trial and during closing arguments. Tr. 1177:6-10 (relying on R. Drmanac testimony regarding his lack of knowledge of the QIAGEN/Illumina dispute: "Did you know about *the upholding of the Illumina patents*? 'No'") (emphasis added).

As discussed above, these mischaracterizations were highly prejudicial in that they suggested to the jury that all the asserted patents, rather than just one out of five, had been considered and "upheld" by the PTAB and the courts in these prior proceedings, and that CGI had knowledge that all of the asserted patents had been previously considered and "upheld."



**E. The Jury’s Willfulness Finding May Have Been Based in Part on the Invalidated ’444 Patent**

A new trial is also warranted because the jury was not asked to specify which patent or patents formed the basis for their willfulness finding, and may have found willfulness in part based on infringement of the invalidated ’444 patent, the broadest patent that covered a 3’-*O* azidomethyl blocked nucleotide. *See, e.g., Omega Patents*, 920 F.3d at 1351-52 and n.14 (ordering a new trial on willfulness where verdict form did not specify which patent or patents had been willfully infringed, certain infringement findings were set aside post-trial, and certain asserted claims were abandoned during *ex parte* reexamination, and stating, “[b]ased on the record, we cannot determine which patent(s) or claim(s) the jury found to be willfully infringed, and such a finding may be based on an infringement finding that has been set aside”). Illumina argued that CGI “analyzed” Illumina’s nucleotides (Tr. 1181:15-16; Dkt. No. 596, PDX-7.54 (quoting Tr. 311:2-4)), which, even if true, would only be relevant to the ’444 patent.

Moreover, Illumina’s misleading arguments using terms such as “patented azido,” further increased the likelihood that the jury based its willfulness finding at least in part on the invalidated ’444 patent. For example, Illumina described the ’444 patent as covering “a patented azido on a nucleotide,” closely associating the term “patented azido” with the ’444 patent, in particular, while incorrectly suggesting that Illumina’s patent rights extended to a chemical “azido” group itself, separate from the nucleotide. Tr. 1222:24. Illumina also misleadingly argued that “from around 2014 to 2020, BGI engaged in a large-scale research and development program in the United States *using the patented azidos for that*, and there’s no dispute that that was patent infringement.” Tr. 158:7-10. Illumina sought to mislead, and likely misled, the jury into finding willfulness based on general use of “patented azidos,” a phrase Illumina tied to the invalid ’444 patent.

### III. CGI SHOULD BE GRANTED A NEW TRIAL ON INDIRECT INFRINGEMENT

A new trial on the issues of induced and contributory infringement is also warranted. As discussed in CGI's motion for JMOL, Illumina did not present substantial evidence from which a reasonable jury could find Defendants indirectly infringed any of the asserted patents, and did not even attempt to present evidence showing that each required element of induced and contributory infringement was met. JMOL § III.

Before trial, Illumina argued that it would not make sense to instruct the jury that Illumina had to prove indirect infringement on a Defendant-by-Defendant basis "because as a practical matter, it's one organization," drawing objections from CGI who countered that if the Defendants were viewed as a single entity, it would be "nonsensical to say you can induce yourself or contribute to yourself." Tr. 117:1-120:19. At the Court's request, the parties submitted statements on the appropriate jury instructions and form of verdict with respect to indirect infringement, and in particular whether to specify which entity or entities induced or contributed to the direct infringement. *See* Dkt. Nos. 555, 557. While Illumina insisted that "requiring detailed contentions is argumentative and unnecessary on the facts of this case," (Dkt. No. 557 at 2) CGI stated that "[p]roviding the identification of direct and indirect infringers . . . [would] clarify Illumina's allegations for the jury, and guard against an indirect infringement finding that does not comport with the law." Dkt. No. 555 at 3.

During oral argument, the Court expressly asked Plaintiff's counsel whether any cases exist "where a court has not distinguished between who the direct and the indirect infringer is." Tr. 541:6-8. Plaintiff's counsel could not identify any case, responding that "[o]n a Rule 50 or on an appeal, if the party's making a fuss about is there indirect infringement, is there direct, *the Court's going to make sure that it knows who's the indirect infringer, how they've encouraged, and then the actual make, use, sell, import from 271(a).*" Tr. 544:16-21 (emphasis added). Based on Illumina's insistence, the Court ultimately adopted Illumina's simplified jury instructions and verdict form while acknowledging that doing so "may be a risk." Tr. 544:22-545:3; *see also id.* 922:1-18 ("THE COURT: I'm confident that I'm going to see [the indirect infringement jury instruction issue] again; but if the plaintiff is satisfied with this as it is, then I'll leave it.").



At trial, Illumina made no effort to clarify its indirect infringement claims for the jury. Instead, the only expert testimony on indirect infringement Illumina introduced was vague testimony from Dr. Romesberg in response to a single question asking for “some examples about how the defendants in this case collaborated together with respect to these infringing sequencing activities in California.” Tr. 655:20-656:6 (“A. Yeah. So, for example, in addition to all five not contesting the direct infringement, they all encouraged each other in a way that -- to infringe in a way that benefited them. So, for example, BGI got CGI, Complete Genomics, to sequence for the Natera deal that I think we heard about earlier. MGI North America was -- was sharing costs of business development and marketing with CGI.”).<sup>6</sup> Counsel asked no further questions of Dr. Romesberg, ending the examination after this response. Moreover, Illumina sought no damages for any acts of indirect infringement, and thus its damages expert also did not address the allegations. Tr. 701:24-702:6 (Dr. Prose describing Illumina’s reasonable royalties damages sought as “BGI’s expected minimum rate of return” on the “infringing research and development done in the United States.”).

Notwithstanding the dearth of evidence of indirect infringement, in closing argument Illumina’s counsel told the jury that Dr. Romesberg had “covered” indirect infringement. Tr. 1202:10. Counsel then went on to gloss over the elements of induced and contributory infringement, once again choosing not to clearly identify Illumina’s theory of indirect infringement. Instead, counsel offered the vague argument that Defendants had “[o]ne BGI strategy” which involved “colloborat[ion] and cooperat[ion]” that amounted to “one BGI process.” Tr. 1202:14-25. Illumina’s counsel did not tell the jury how, if at all, indirect infringement related to the damages sought. The jury was then left to face a verdict form where 40 percent of the questions (10 of 25) were on contributory infringement and inducement even though Illumina spent virtually no time addressing indirect infringement during trial. Dkt. 594.

Jury confusion ensued. At the end of trial Illumina’s theory of indirect infringement, and in particular which entity or entities indirectly infringed and how they did so, was no clearer than it

<sup>6</sup> Contrary to Dr. Romesberg’s suggestion that the jury heard about the Natera deal earlier, the jury heard no other evidence regarding BGI or CGI’s role in any “Natera deal.” Illumina did play deposition testimony of Xun Xu at trial that included a single reference to BGI having licensed a patent from Natera in 2019. Dkt. No. 571-6 (X. Xu) at 118:12-23. The testimony, however, did not include any discussion of the details of this license agreement.

was when the parties were arguing over jury instruction and the verdict form at the pre-trial conference. The jury spent days deliberating their verdict, and during that time raised numerous detailed questions relating to induced and contributory infringement, showing their confusion. *See* Dkt. No. 581 (Note 1 on Nov. 23, 2021) (“As it pertains to the issues of induced infringement and contributory infringement of “another”, does “another” refer to entities outside of BGI Group, or entities outside as well?”); Case No. 3:19-cv-3770-WHO Dkt. No. 547 (Annotated Note 3 on Nov. 24, 2021) (“If a more specific patent (e.g. ’537) uses components from another patent (i.e. ’444), does a determination of induced/contributory infringement on the latter patent indicate induced/contributory infringement on the former? (i.e. by association)”); *id.* (Note 4 on Nov. 24, 2021) (“Can inducing infringement happen between individuals of the same entity (individuals being either peers or a reporting/management relationship)?”). The jury’s struggle with indirect infringement became a serious distraction, taking the jury away from the central issues of invalidity, willfulness, and damages for which the parties actually put in evidence. For these reasons, CGI should be granted a new trial on indirect infringement.

#### IV. CGI SHOULD BE GRANTED A NEW TRIAL ON DAMAGES

##### A. The Damages Award Is Excessive and Unsupported by the Evidence

A new trial on damages is also warranted, as the jury’s award was unduly excessive and untethered to any evidence. *Oiness v. Walgreen Co.*, 88 F.3d 1025, 1030 (Fed. Cir. 1996). The \$8 million damages award for research work alone is “grossly excessive or monstrous, clearly not supported by the evidence, [and] based only on speculation or guesswork.” *Wordtech*, 609 F.3d at 1318-19.

For the reasons provided in CGI’s motion for JMOL, incorporated herein by reference, Illumina’s damages evidence: (1) fails to account for the fact that R&D could have been done in China, as Illumina’s technical expert admitted; (2) does not account for the time value of money; (3) is based on R&D expenditures that include research projects that did not involve the patented azidomethyl technology in any way; and (4) fails to split the benefits of the use of the patents-in-suit

1 between the parties. JMOL § IV.B. If JMOL is not granted on damages, then a new trial is  
2 warranted.

3 Furthermore, as CGI's motion for JMOL demonstrates, if the '973 Patent is found invalid, a  
4 new trial on damages is warranted because the infringing StandardMPS R&D work was only  
5 conducted until 2016. JMOL § IV.C. Because both damages experts' opinions relied on R&D  
6 expenditures between 2016-2020 (and Dr. Kearl projected expenditures through 2023), the jury's \$8  
7 million damages award must include damages for non-infringing CoolMPS research, and cannot  
8 stand if the '973 patent is found invalid.

#### 10 **B. Alternatively, the Court May Condition the New Trial on a Remittitur**

11 The Federal Circuit, like the Ninth Circuit, applies a "maximum recovery rule" which remits  
12 an excessive jury award to the "highest amount of damages that the jury could properly have  
13 awarded based on the relevant evidence." *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 519  
14 (Fed. Cir. 1995); *see also Jessen*, 106 F.3d 407 ("The proper amount of a remittitur is the maximum  
15 amount sustainable by the evidence.")

16 Because of the substantial flaws in Illumina's evidence, the maximum recovery justified is  
17 \$295,000. Only CGI's expert presented evidence that accounted for available non-infringing  
18 alternatives, the time value of money, the proper royalty base of infringing R&D activities, and a  
19 split of the benefits of the patents-in-suit between the parties. He opined that any damages should be  
20 a fully paid-up lump sum royalty of \$295,000 for a license to conduct R&D in the U.S. from 2014 to  
21 June 2023. Tr. 944:5-10. If the Court remits the damages award, it should reduce it to the highest  
22 amount sustainable by the proof: \$295,000.

#### 25 **V. CGI SHOULD BE GRANTED A NEW TRIAL BASED ON ILLUMINA'S 26 PREJUDICIAL MALIGNING OF DEFENDANTS' TIES TO CHINA**

27 Finally, Illumina repeatedly used inflammatory language about Defendants' ties to China,  
28 insinuating that Defendants are aligned with stereotypes of communism or Chinese companies  
and/or business practices. Defendants objected to the presentation of this type of language, which

the Court granted. *See* Dkt. No. 489 at 3-4 (Defendants’ motion *in limine*); Dkt. No. 526 at 16 (granting-in-part Defendants’ motion *in limine*). Nevertheless, Illumina repeatedly attempted to malign Defendants by referring to Dr. Jian Wang as “Chairman” Wang, despite the fact that he is not referred to with that title by any Defendants. *See* Tr. 170:15-16, 180:9, 183:17, 184:7-8 (rephrasing “Mr. Wang Jian” as “Chairman Wang”). Illumina drew an association between Dr. Wang (a Chinese national) and the well-known historical Chairman of the Chinese Communist Party, “Chairman Mao.” Defendants objected to this comparison, and Illumina agreed to change its phrasing. Tr. 377:7-378:20. Nevertheless, Illumina kept using the “Chairman Wang” language in an attempt to inflame the jury and connect Defendants to the Chinese Communist Party. *See, e.g.* Tr. 387:12, 389:14, 392:23, 396:20, 492:11, 1177:25, 1179:8, 1180:3. Such appeals to local bias against an outsider are prejudicial, and a new trial on the basis of this unfairness to Defendants is thus warranted. *Whitehead v. Food Max of Mississippi, Inc.*, 163 F.3d 265, 278 (5th Cir. 1998).

DATED: January 11, 2022

Respectfully submitted,

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